

I claim:

[c1] 1. A process for synchronizing an input signal (S) including the following process steps:

demodulating (5a) the input signal (S) according to a first demodulation method (AM) in relation to a first signal parameter for creating a first demodulated input signal (S_{AM});

correlating (6a) the first demodulated input signal (S_{AM}) with a first comparison signal ($f(AM, \text{Signal})$) that depends upon the first demodulation method (AM) to determine a time offset (τ) between the first demodulated input signal (S_{AM}) and the first comparison signal ($f(AM, \text{Signal})$); and

time-wise shifting the input signal (S) in accordance with the time-wise offset (τ) determined by the correlation.

[c2] 2. Procedure according to claim 1, wherein is further included:

demodulating (5b) the input signal (S) according to a second demodulation method (FM) in relation to a second signal parameter for creating a second demodulated input signal (S_{FM}) and

Correlating (6b) the second demodulated input signal (S_{FM}) with a second comparison signal ($f(FM, \text{Signal})$) that depends upon the second demodulation method (FM) for determining a time offset

between the second demodulated input signal (S_{FM}) and the second comparison signal ($f(FM, Signal)$).

[c3] 3. Process according to claim 2 wherein the first demodulation method is amplitude demodulation (AM) and the first signal parameter is the amplitude and the second demodulation method is frequency demodulation (FM) in the second signal parameter is frequency.

[c4] 4. Process according to claim 1, wherein:

the input signal (S) is demodulated (5a, 5b, 5c) according to n different demodulating methods ($f(x)$) in relation to n different parameters to create n different demodulated input signals ($S_{f(x)}$); and

each demodulated input signal ($S_{f(x)}$) is correlated (6a, 6b, 6c) with an associated comparison signal ($f(f(x), Signal)$) dependent on the associated demodulation method ($f(x)$) to determine a time offset (τ_1, τ_2, τ_3) between each demodulated input signal ($S_{f(x)}$) and the associated comparison signal ($f(f(x), Signal)$).

[c5] 5. Process according to claim 4 wherein each demodulation method is defined by subjecting the input signal (S) to one of a definite analytical and partially defined function $f(x=S)$ in order to create the associated demodulated input signal ($S_{f(x)}$).

[c6] 6. Process as in claim 5 wherein at least one of the functions is one of: amplitude demodulation (AM); the logarithm of the amplitude demodulation ($\log_n(AM)$); frequency demodulation

(FM); and the time differential of the frequency demodulation ($d/dt(\text{FM})$).

[c7] 7. Process according to claim 2, wherein the different results of the correlations (6a, 6b, 6c) of the different demodulation methods are subjected to a weighting (8), with the correlation results of each demodulation method having a predetermined weighting factor (g_1, g_2, g_3) applied thereto, for calculating the offset (τ) of the input signal (S).

[c8] 8. Process according to claim 1, wherein the comparison signal ($f(\text{AM}, \text{Signal}), f(\text{FM}, \text{Signal}), f(f(x), \text{Signal})$) is obtained by subjecting a synchronization sequence to the first demodulation method (AM, FM, $f(x)$).

[c9] 9. Process according to claim 1 wherein the input signal (S) is subjected to an analog/digital conversion (2; 2a, 2b, 2c) at one of before and after demodulation (5a, 5b, 5c).

[c10] 10. Process according to claim 9 wherein a filtering (1; 1a, 1b, 1c) takes place at one of before and after the analog/digital conversion (2; 2a, 2b, 2c).

[c11] 11. Process according to claim 10 wherein the filtering (1a, 1b, 1c) is different for each demodulation method (AM, FM, $f(x)$).

[c12] 12. Process according to claim 10 wherein the filtering (1a, 1b, 1c) is carried out so that the one demodulation method (AM, FM, $f(x)$) is converted into another demodulation method (AM, FM, $f(x)$).